



RIDOT – The Ten Year Plan, Asset Management, and Innovation – Moving Ahead in the 21st Century

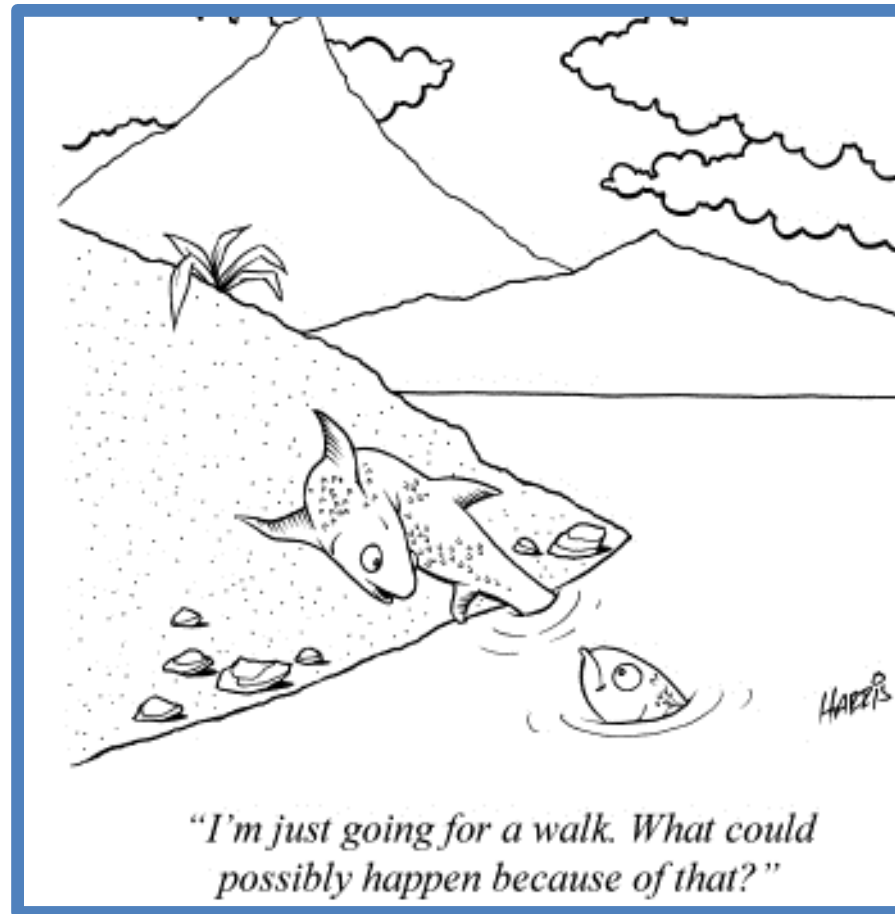


**Rhode Island Bar Association –
Environmental and Energy Law Committee
(EELC)
February 16, 2018**

**Meredith E. Brady
Administrator, Division of
Planning**



**“With the possible exception of the equator, everything begins somewhere.” ~
C.S. Lewis**



April 2016



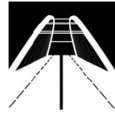
**Meredith Brady, Acting Director of Policy
Staff of 1**

October 2017



**Meredith Brady, Administrator, Division of Planning
Staff of 35**

RIDOT System Quick Facts



1,175

Bridges (5+ feet) as of 6/30/17



More than

2,900

Lane miles of road



5 rail stations

18 park and rides



104,000

Traffic devices



25,000

Catch basins (approximate)

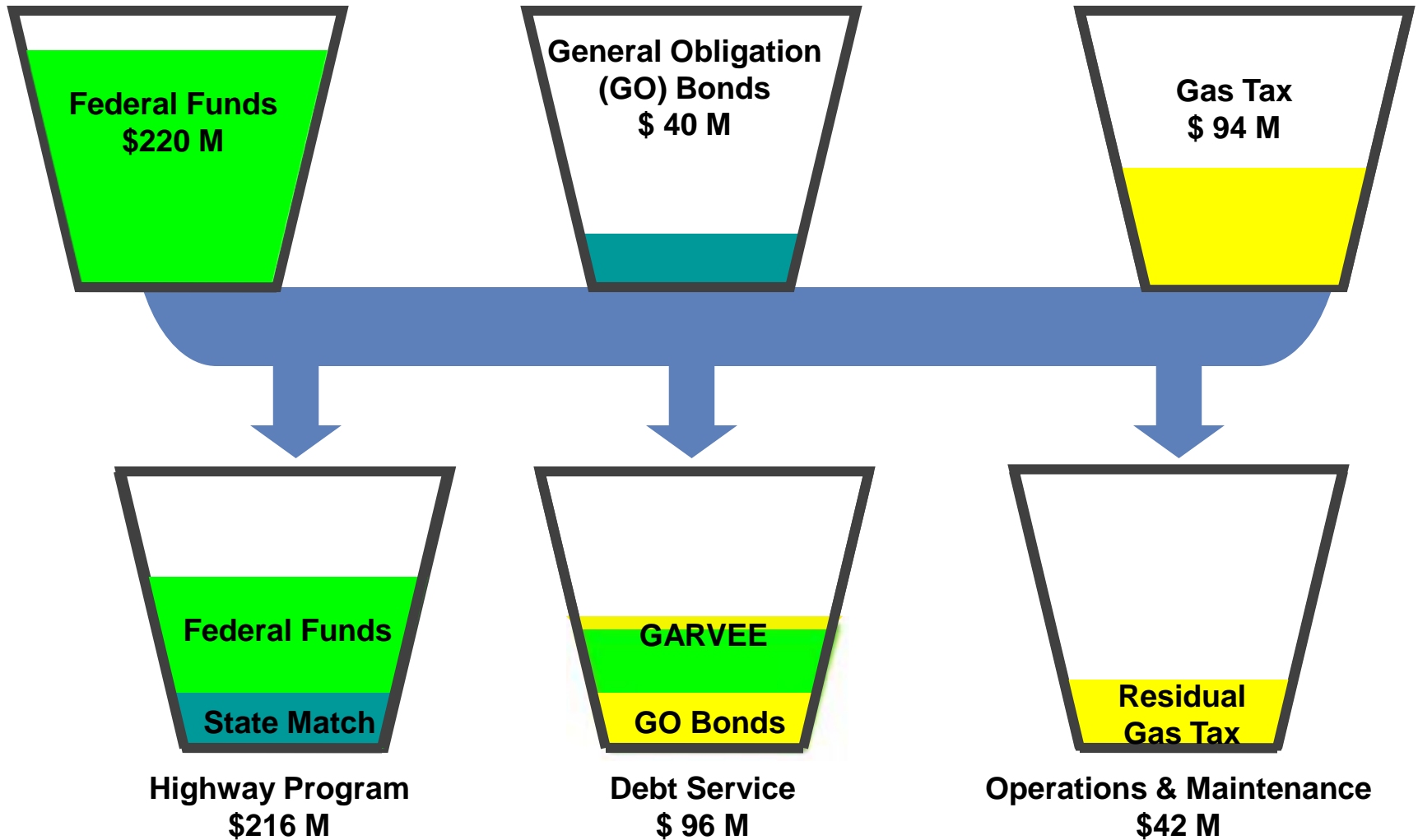


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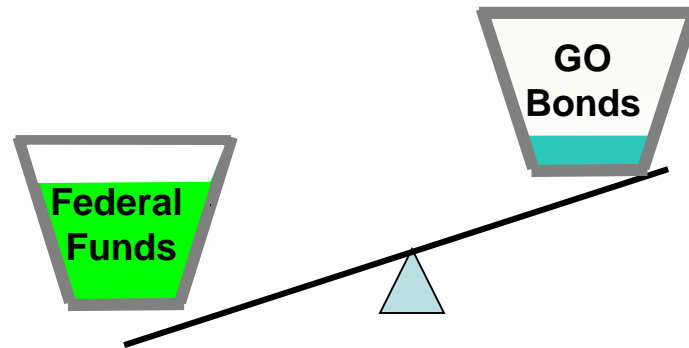
Total employees

(as of 6/30/17)

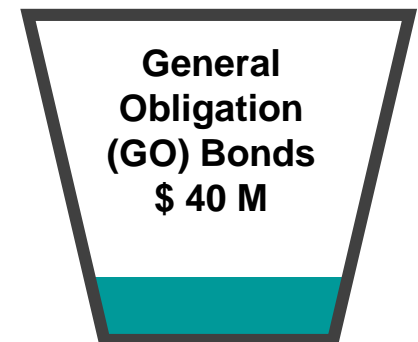
FY 2009 RIDOT Highway and Bridge Program Funding Sources and Uses



RI Issues General Obligation (GO) Bonds to Match Federal Transportation Funding

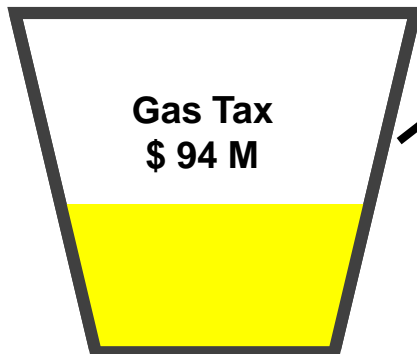


- General Obligation (GO) Bonds are used to leverage federal funds.
- Transportation GO Bonds have historically been approved by the voters every two years.



RI Gas Tax Distribution

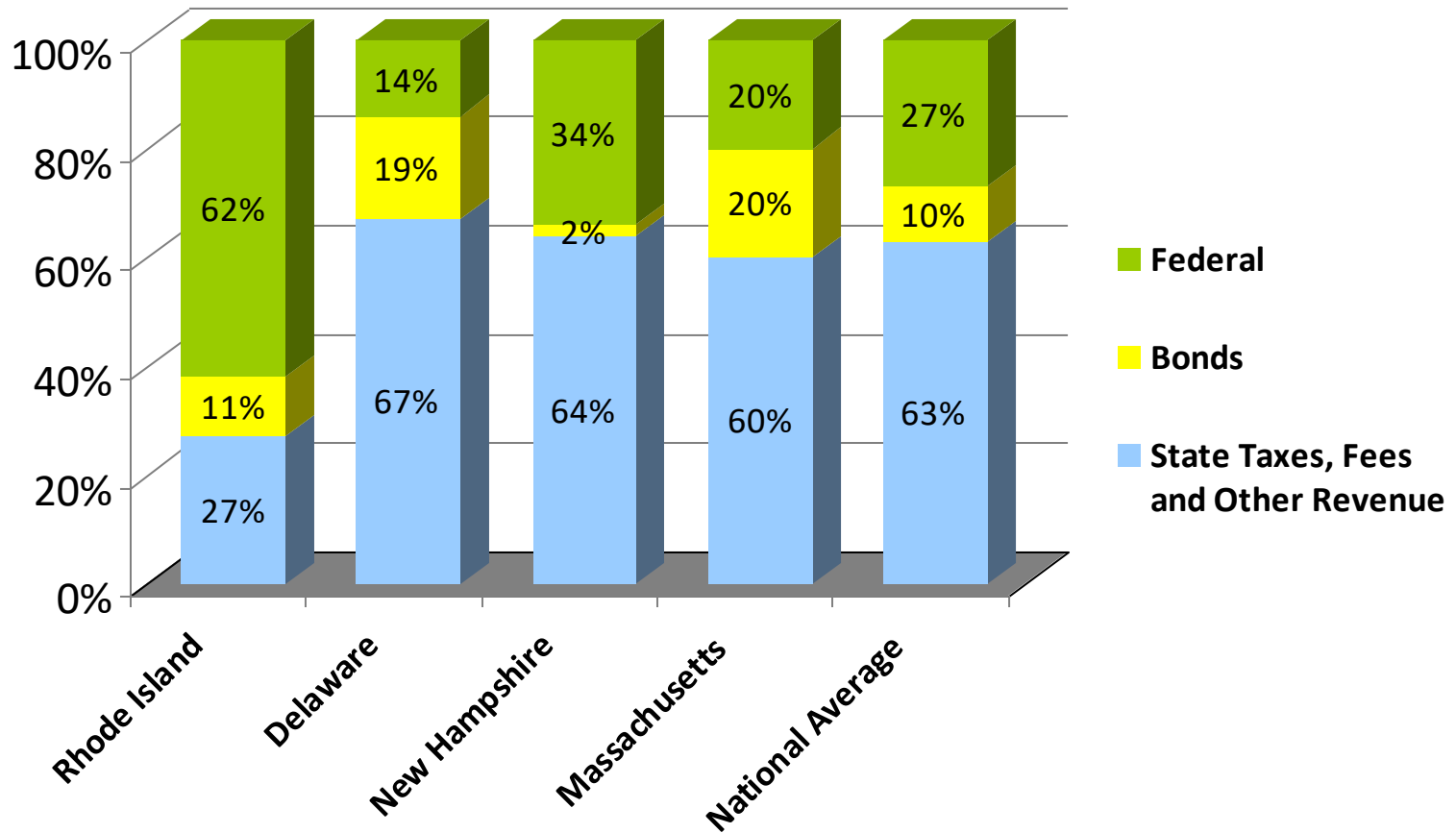
Established by State Law



Recipient	Pennies	Yield in millions
RIDOT	20.75 ¢	\$ 94
RIPTA	7.25 ¢	\$ 33
Elderly Affairs	1 ¢	\$ 5
General Fund	1 ¢	\$ 5
TOTAL	30 ¢	\$137

Revenues for Transportation

Rhode Island Compared With Other States

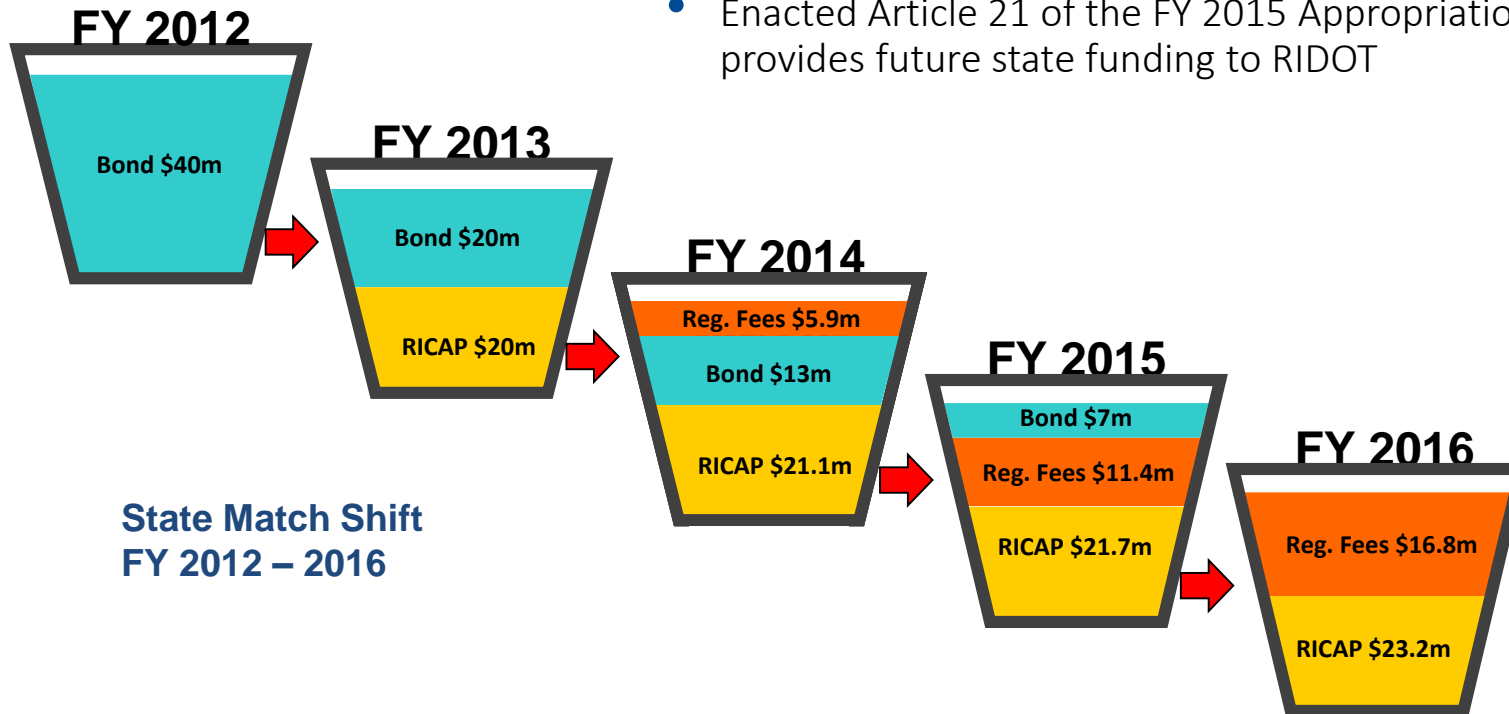


- Prior to FY2010, Rhode Island matched Federal funds (~\$210m annually) with borrowing against future gas tax.
- Legislature established Rhode Island Highway Maintenance Account in FY2011, increased in FY2012, FY2013
 - Indexed gas tax;
 - Registration & license fees (phased in through FY2018)
 - Other fines and penalties



how the state has responded...

- Introduced critical reforms to direct more revenue to transportation and get RI off a past practice of borrowing for the state match
- Enacted Article 21 of the FY 2015 Appropriations Act which provides future state funding to RIDOT





What, exactly, did RhodeWorks change?

- Revenue: An increase of roughly \$330 million over the 10 year period in truck-only tolls (first revenue in FFY2018);
- \$129 million in available Federal funds for bridges in first three years (FFY2016-FFY2018) by restructuring existing GARVEE debt (June 2016);
- \$300 million in NEW GARVEE borrowing (October 2017).

RhodeWorks Funding Sources											
Highway -State	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	10 Year Total
Current State Law - RIDOT Funding Sources											
ISTF Fund											
Gas Tax	\$88.7	\$88.3	\$91.9	\$91.2	\$94.3	\$93.3	\$92.1	\$91.0	\$91.0	\$91.0	\$913.0
RICAP Funds	\$27.2	\$27.2	\$27.2	\$27.2	\$27.2	\$27.2	\$27.2	\$27.2	\$27.2	\$27.2	\$272.0
RI Highway Maintenance Account	\$78.1	\$86.7	\$87.5	\$87.7	\$87.8	\$88.0	\$88.4	\$88.2	\$88.2	\$88.2	\$868.7
RICAP for Maintenance Facilities	\$4.8	\$4.2	\$4.3	\$4.3	\$14.7	\$10.2	\$10.2	\$9.0	\$10.0	\$10.0	\$81.7
Project Closeouts	\$8.0	\$5.0	\$5.0	\$5.0	\$5.0	--	--	--	--	--	\$28.0
Land Sales	\$1.4	\$1.0	\$1.0	\$1.0	\$1.0	\$1.0	\$1.0	\$1.0	\$1.0	\$1.0	\$10.4
GARVEE Bond Proceeds	\$85.0	\$77.0	\$45.0	--	--	--	--	--	--	--	\$207.0
Transit Hub Bond	\$35.0	--	--	--	--	--	--	--	--	--	\$35.0
Unallocated Bond Proceeds	\$3.0	\$3.0									
RICAP for Pavement Projects	--	\$20.0	\$20.0	\$20.0	\$20.0	\$20.0	\$20.0	--	--	--	\$120.0
Third Party Funding	\$1.0	\$1.0	\$1.0	--	--	--	--	--	--	--	\$3.0
Toll Revenue	\$19.0	\$44.8	\$44.8	\$44.8	\$44.8	\$44.8	\$44.8	\$44.8	\$44.8	\$44.8	\$422.2
Total RIDOT State Resources Available	\$351.3	\$358.2	\$327.7	\$281.2	\$294.8	\$284.5	\$283.7	\$261.2	\$262.2	\$262.2	\$2,960.9
Highway - Federal	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	10 Year Total
Railway-Highway Crossings Program	\$1.2	\$1.2	\$1.2	\$1.2	\$1.2	\$1.2	\$1.2	\$1.2	\$1.2	\$1.2	\$12.1
Highway Safety Improvement Program	\$18.0	\$18.2	\$18.5	\$18.5	\$18.5	\$18.5	\$18.5	\$18.5	\$18.5	\$18.5	\$184.3
Transportation Alternative Program	\$3.3	\$3.3	\$3.3	\$3.3	\$3.3	\$3.3	\$3.3	\$3.3	\$3.3	\$3.3	\$32.9
National Highway Performance Program	\$128.6	\$131.4	\$134.4	\$134.4	\$134.4	\$134.4	\$134.4	\$134.4	\$134.4	\$134.4	\$1,335.1
CMAQ Program	\$10.8	\$11.0	\$11.2	\$11.2	\$11.2	\$11.2	\$11.2	\$11.2	\$11.2	\$11.2	\$111.7
2.5% Inflationary Increase from Federal Revenues	--	--	--	\$6.0	\$12.2	\$18.5	\$25.0	\$31.6	\$38.4	\$45.4	\$177.1
Planning	\$6.3	\$6.3	\$6.4	\$6.4	\$6.4	\$6.4	\$6.4	\$6.4	\$6.4	\$6.4	\$63.5
Surface Transportation Block Grant Program	\$61.1	\$62.2	\$63.7	\$63.7	\$63.7	\$63.7	\$63.7	\$63.7	\$63.7	\$63.7	\$632.9
National Freight Program	\$6.6	\$7.5	\$8.3	\$8.3	\$8.3	\$8.3	\$8.3	\$8.3	\$8.3	\$8.3	\$80.5
TIGER Grant	\$6.6	\$6.6	--	--	--	--	--	--	--	--	\$13.1
Other Federal Non-Formula Distribution/Redistribution	\$25.0	\$25.0	\$25.0	\$25.0	\$25.0	\$25.0	\$25.0	\$25.0	\$25.0	\$25.0	\$250.0
Federal Budgetary Holdback	(\$6.4)	(\$6.5)	(\$6.6)	(\$6.6)	(\$6.6)	(\$6.6)	(\$6.6)	(\$6.6)	(\$6.6)	(\$6.6)	(\$65.9)
Total Federal Highway Funding Sources	\$261.1	\$266.2	\$265.4	\$271.3	\$277.5	\$283.9	\$290.4	\$297.0	\$303.8	\$310.8	\$2,827.2
Non-Highway Revenue	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	10 Year Total
NHTSA	\$3.0	\$3.0	\$3.0	\$3.0	\$3.0	\$3.0	\$3.0	\$3.0	\$3.0	\$3.0	\$29.9
FTA (Fixed Guideway)	\$5.4	\$4.3	\$4.3	\$4.3	\$4.3	\$4.3	\$4.3	\$4.3	\$4.3	\$4.3	\$44.1
Total Non-Highway Funding Sources	\$8.4	\$7.3	\$7.3	\$7.3	\$7.3	\$7.3	\$7.3	\$7.3	\$7.3	\$7.3	\$74.0
Total RIDOT Funding Sources	\$ 620.8	\$ 631.7	\$ 600.4	\$ 559.7	\$ 579.6	\$ 575.7	\$ 581.4	\$ 565.4	\$ 573.2	\$ 580.2	\$ 5,862.1



What, exactly, did RhodeWorks change? Part II

- Ten Year Plan
- All Revenue and Expenditures (Operating and Capital)
- Line Items Instead of Programs



October 2015	RIDOT Issues First 10 Year Plan
December 2015	FAST Act Passes
February 2016	RhodeWorks Passes
May 2016	MPO Sends First 10 Year TIP to Public Comment
June 2016	Refunded Current GARVEE; Took Significant Steps Toward Reorganization
Summer/Fall 2016	GARVEE New Money Issuance of \$300M; FY2017-FY2025 TIP Approved
Fall 2017	First Update to Ten Year Plan – Approved Mid-December 2017
January through April 2018	Asset Management Plan and Ten Year Plan Processes Converge
Spring/Summer 2018	Second Annual Ten Year Plan/TIP Update

So, What Are We Doing To Improve Fiscal Analysis Methods?

- Starting a TIP Group under Federal Programs in the Planning Division, with dedicated staff.
- Weekly Working Group on TIP Funding (CFO, Federal Programs).
- Asset Management Plan – Integrate With TIP.
- TIP Peer Exchange.
- New TIP Software.
- Best Practices – Improved Accuracy, Management

Transportation Asset Management

A risk-based Transportation Asset Management Plan is required by the Federal Highway Administration (FHWA) and MAP-21 and the FAST Act.

ASSET MANAGEMENT PROCESS



Source: Colorado Department of Transportation, 2014

Defined as “a strategic and systematic process of operating, maintaining, upgrading, and expanding physical assets effectively throughout their lifecycle. It focuses on business and engineering practices for resource allocation and utilization, with the objective of better decision making based upon quality information and well defined objectives.” (AASHTO, 2006)

Why An Asset Management Plan?

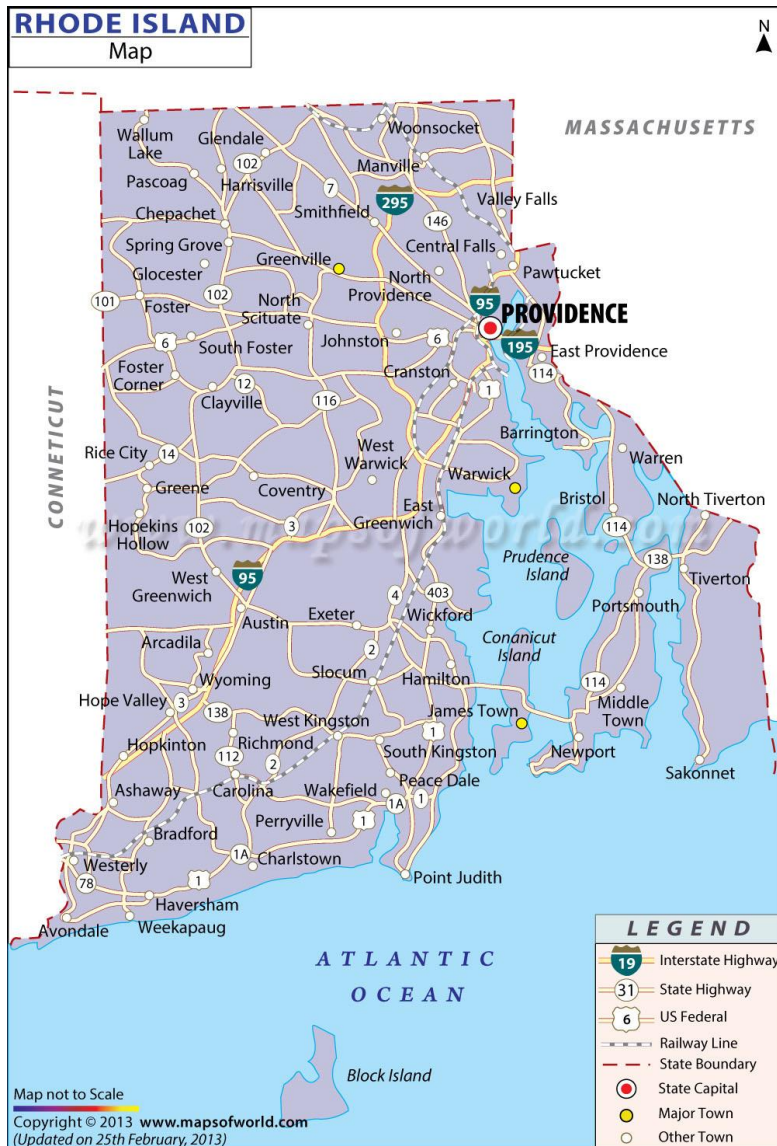
- First, it's required.
 - Without an asset management plan states face significant penalties.
- More importantly, it's important.
 - It allows us to assess and forecast the deterioration of our assets;
 - Sets complex, long-term objectives in a coordinated and manageable way.
 - It allows us to think concretely about our “inventory” within each state ... and ultimately across jurisdictions within a “megaregion.” **So, as we work in advance of 2018 deadline, we are thinking about how we'll do that.**

Rhode Island TAMP Objectives

- The primary objective of the TAMP being developed by RIDOT is to
 - Meet target asset conditions
 - While balancing the management of risks and the achievement of desired outcomes
 - Within the constraints of financial resources
- Rhode Island began the TAMP development process in 2014: the introduction of the Federal mandate provided an opportunity to pursue a plan to bring our transportation infrastructure into a state of good repair while developing the processes and systems needed to support an asset management based organization.

Rhode Island TAMP and the TIP

- In 2015, Rhode Island ranked last in overall bridge condition, leading to the development of the RhodeWorks initiative.
- The goal of RhodeWorks is simple, and matches with the primary objective of the TAMP: achieve and sustain a state of good repair through an asset management approach.
- TIP process integrated with TAMP requirements and processes: we need to gather and link data, strengthen project tracking, record all information in a geospatial database.
- We started talking about changes years ago, reaching the point where capacity, technology, need, and support are all pushing us toward better transportation planning.



- The asset management approach looks at statewide assets as a whole.
- Projects compared to similar projects in all municipalities.
- The worst road in one community might be comparable to the best road in another.

Bridges: Worst in nation



McCormick Quarry Bridge,
East Providence

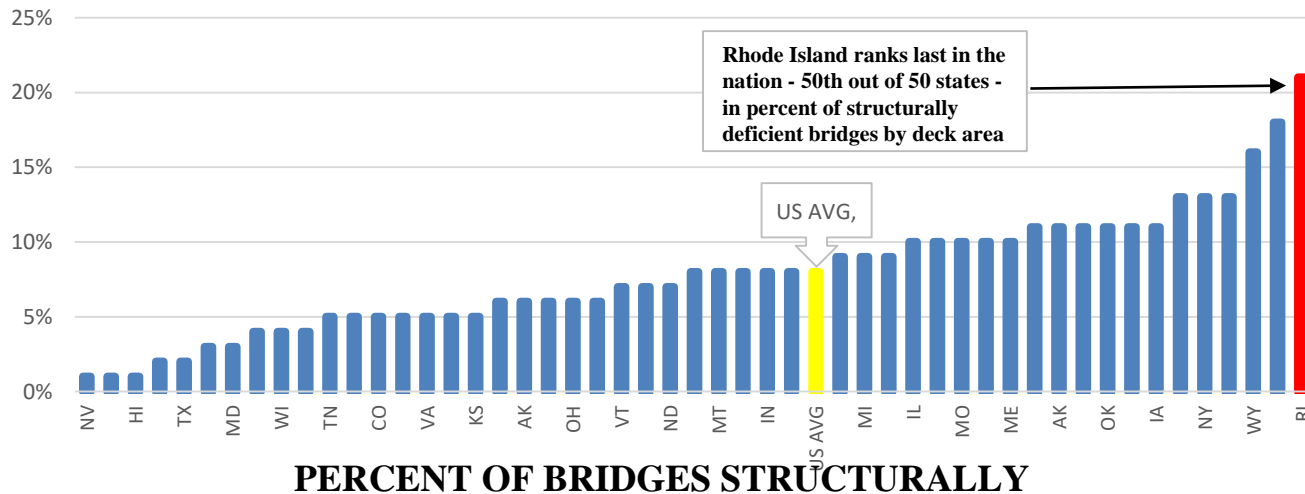


Huntington Viaduct Bridge, Providence

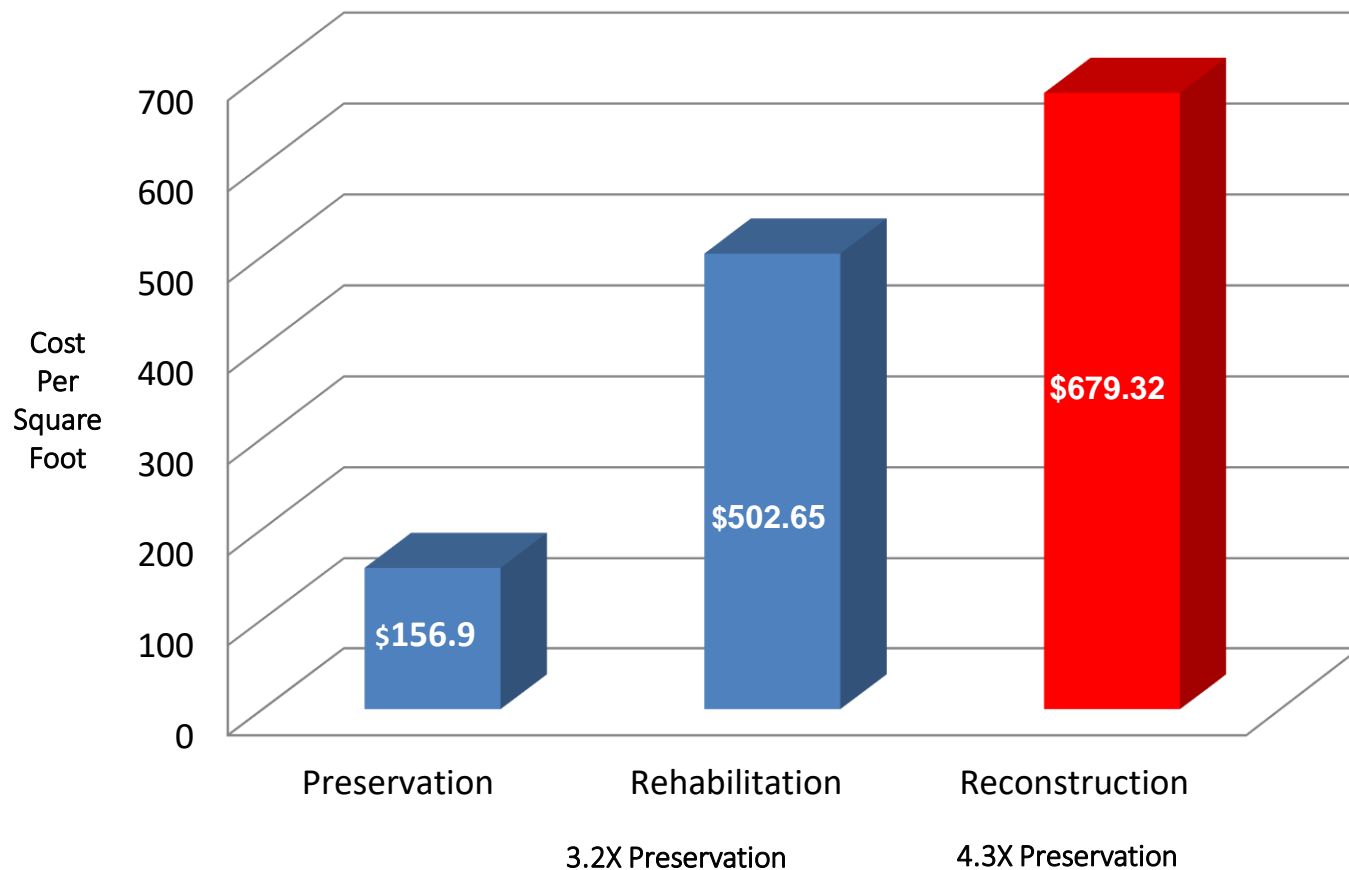


One out of every five Rhode Island bridges is structurally deficient. We rank last among the 50 states in terms of structurally deficient bridges.

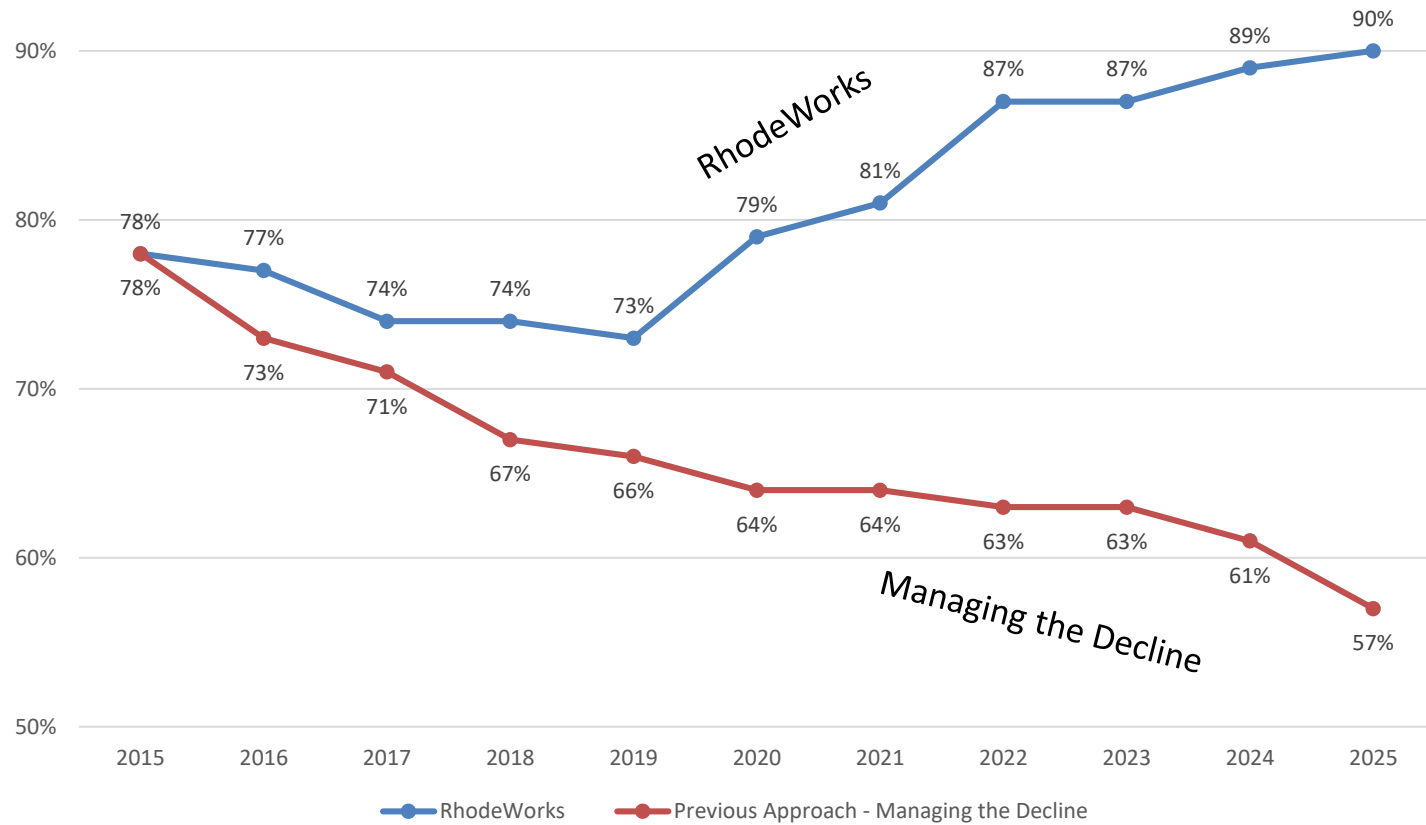
The Key Problem Driving Rhode Island's Asset Management Approach



Letting Bridges Deteriorate Leads to Much More Costly Rehabilitation and Reconstruction



Structural Bridge Sufficiency in the Next 10 Years



Pavement: Second worst in nation



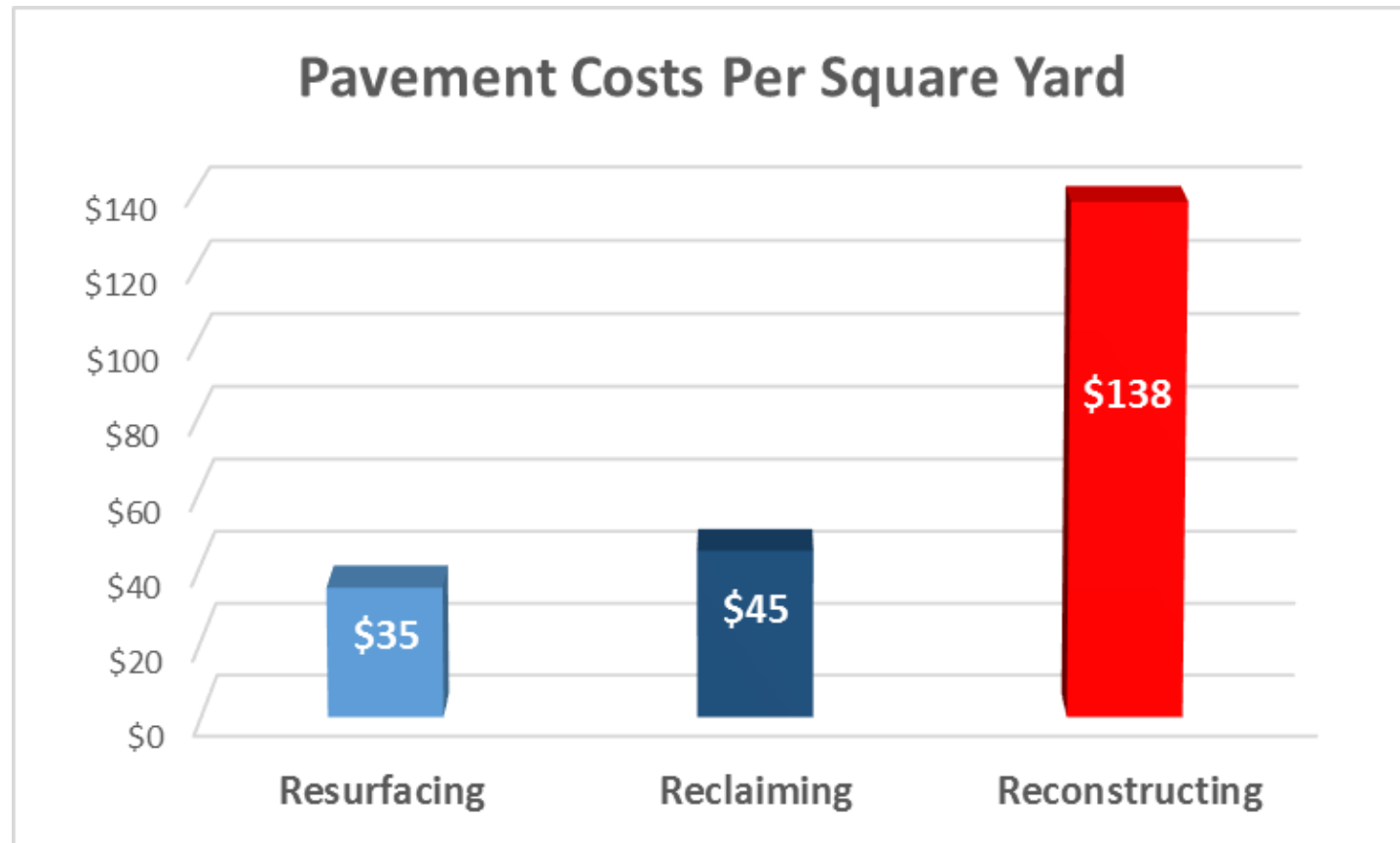
Rhode Island's interstate roadway network ranked ninth best in the country, but when all arterials and freeways are added, our ranking falls to second worst nationwide

Centerline Miles of Road, Federal Funding Eligibility

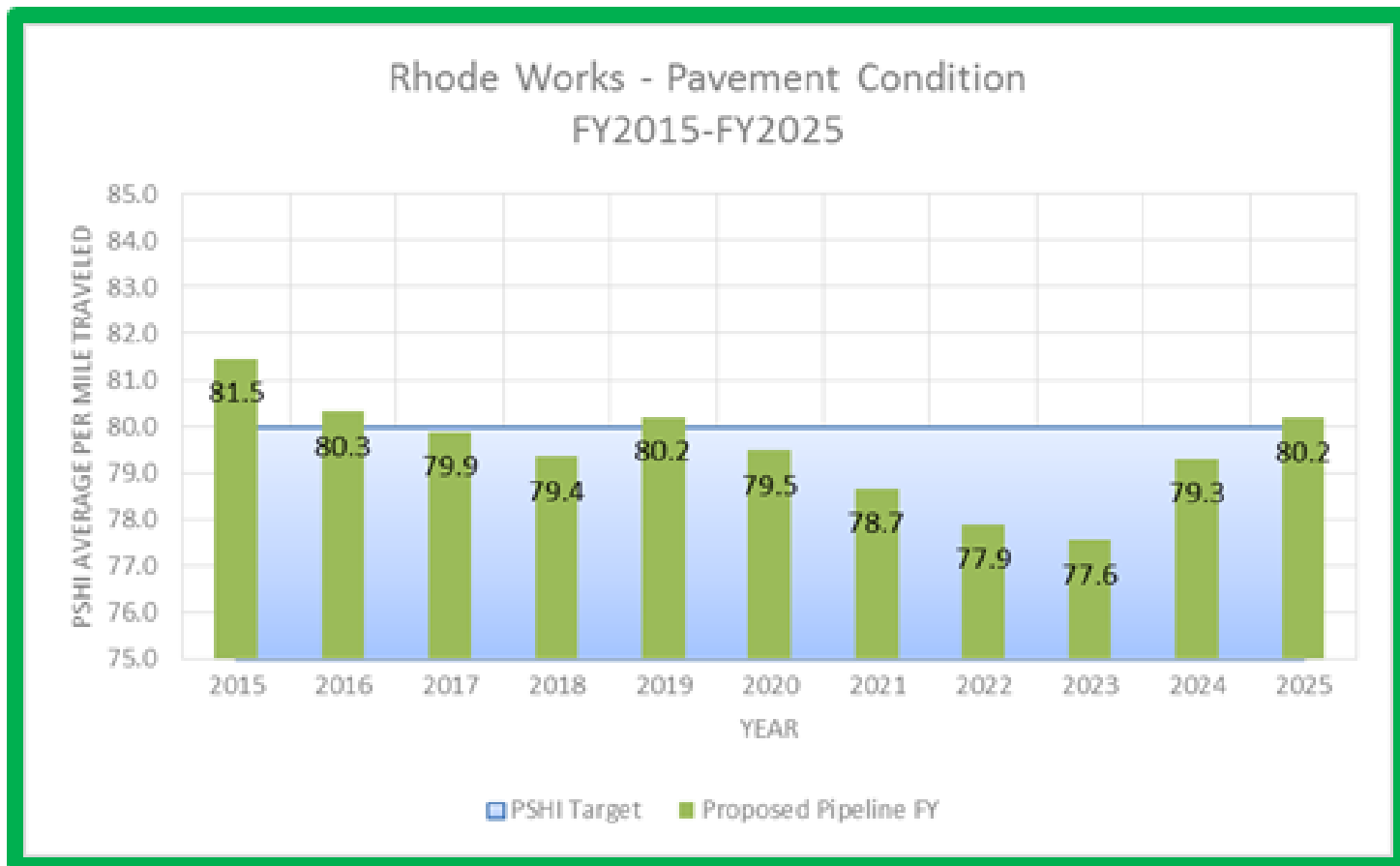
	Total	NHS	Non-NHS but Eligible for Federal Funds	Not Eligible for Federal Funds
State	1,099 (17.0%)	523 (92.7%)	510 (43.3%)	66 (1.4%)
Municipal	5,275 (81.4%)	38 (6.7%)	663 (56.2%)	4,574 (96.6%)
Others*	106 (1.6%)	3 (0.6%)	6 (0.5%)	97 (2.0%)
Total	6,480 (100%)	564 (8.7%)	1,179 (18.2%)	4,737 (73.1%)

**Includes RITBA, State Colleges, Military, FWS, BIA, Narragansett Indian Tribe, QPD, DOA, DEM and Airports*

Unabated Pavement Deterioration Leads to Costly Rehabilitation and Reconstruction



3.1X Reclaiming
3.9X Resurfacing

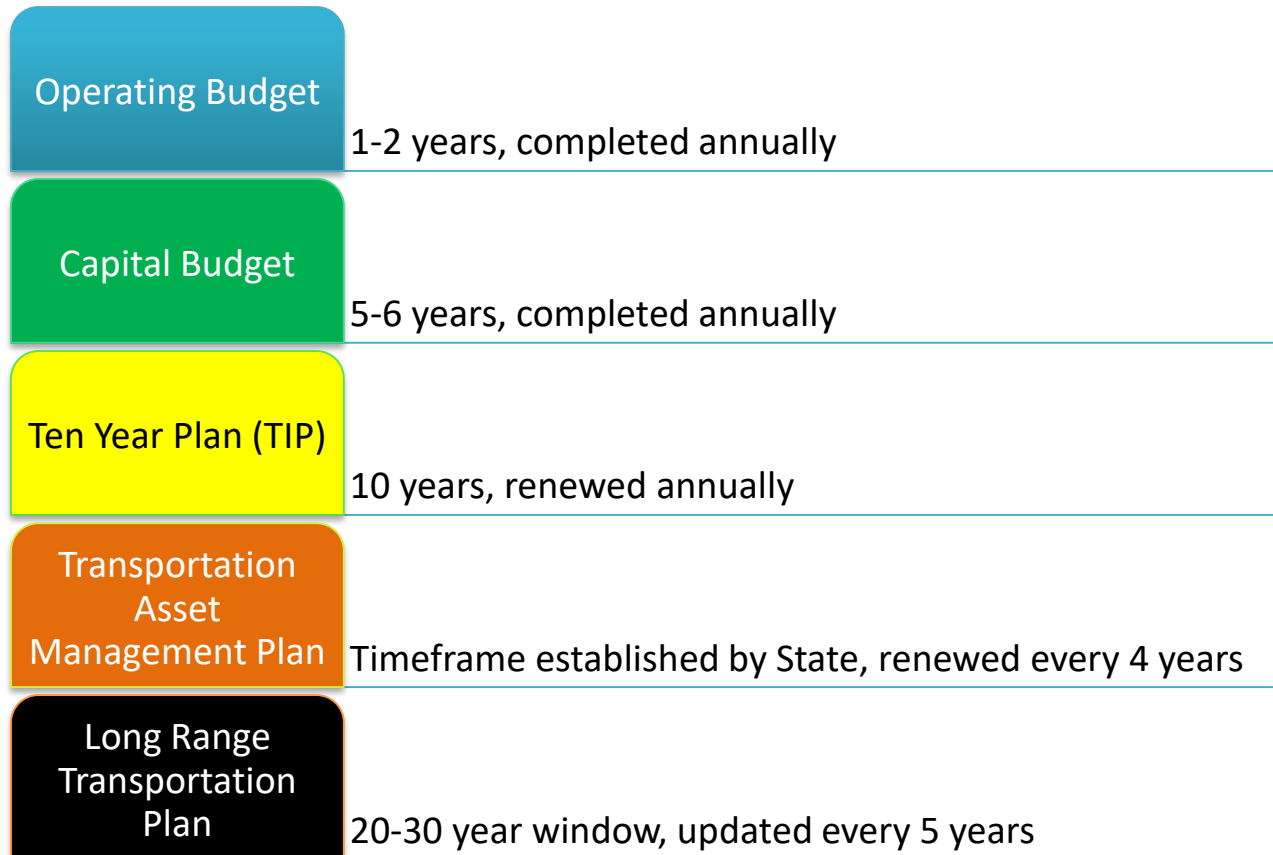


Assets we're including in Rhode Island's plan

- Include National Highway System (NHS) bridges and pavements in the official plan (*due April 30, 2018*), as required
- We are also going to take the opportunity, for ourselves, to create a comprehensive guide for asset management in the following areas:
 - Bridge
 - Pavement
 - Drainage
 - Traffic Safety
 - Transit
 - Bicycle/Pedestrian
 - ADA
 - RIDOT Facilities
 - ITS
 - Operating, including:
 - Fleet
 - Systems and Software

Components of the Asset Management Plan

- Objectives
- Performance Gap Analysis
- Lifecycle Planning Strategies
- Risk Management
- Measures and Targets
- Summary of Assets and Conditions
- Investment Strategies
- Financial Plan



Questions?

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“Whomever pulls the sword from the stone
will lead this project.”